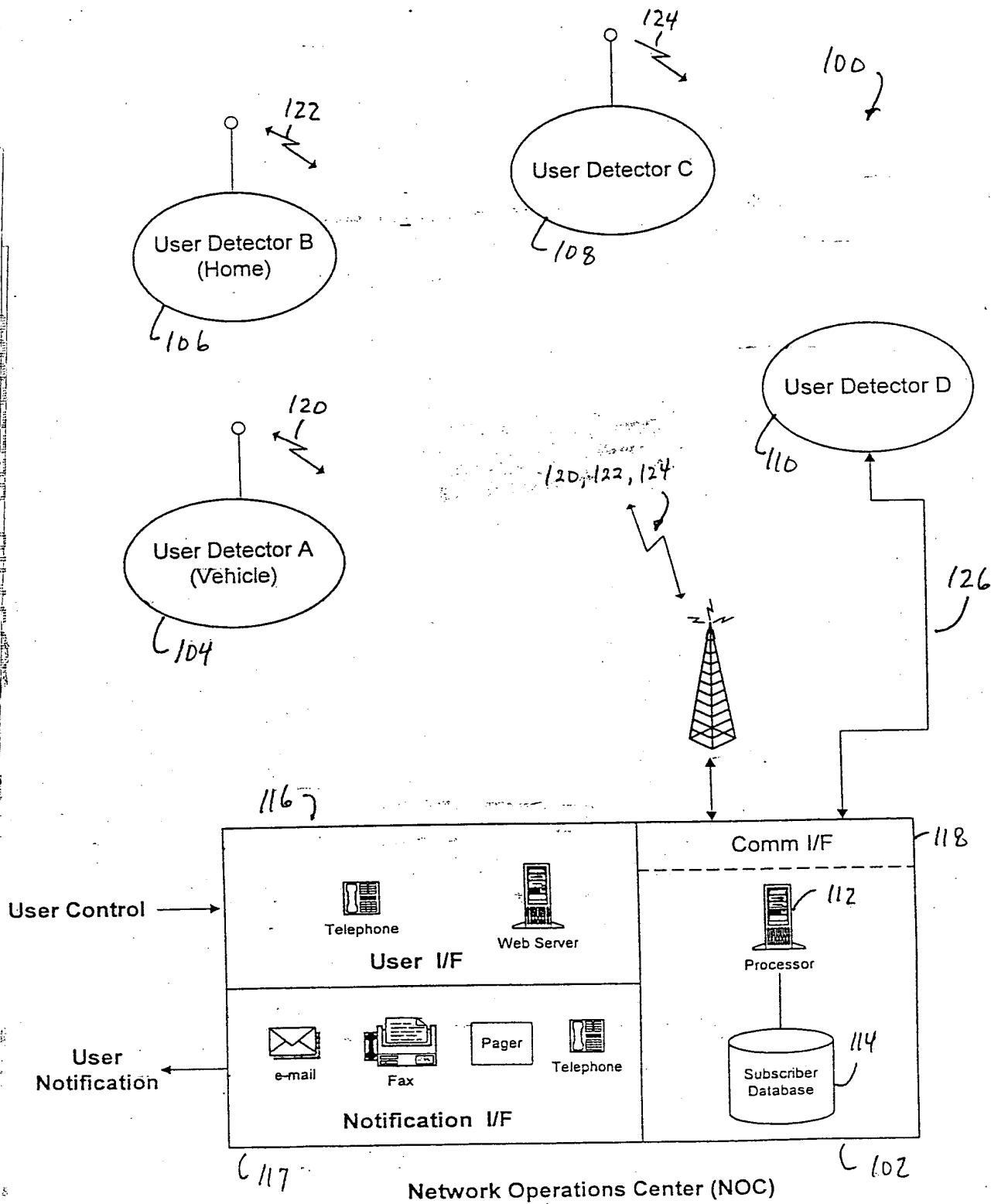


McCutchen, Doyle, Brown & Enersen, LLP (415) 393-2000  
Three Embarcadero Center,  
San Francisco, California 94111  
Serial No.: Not Yet Assigned  
Filing Date: April 16, 2001  
Inventors: Bristow, et al.  
Titled: SOFTWARE AND PROTOCOL STRUCTURE  
FOR AN AUTOMATED USER NOTIFICATION SYSTEM  
Express Mailing Label No.: EL710236861US  
Figure 1 of 19 Attorney Docket No. 22962-7005



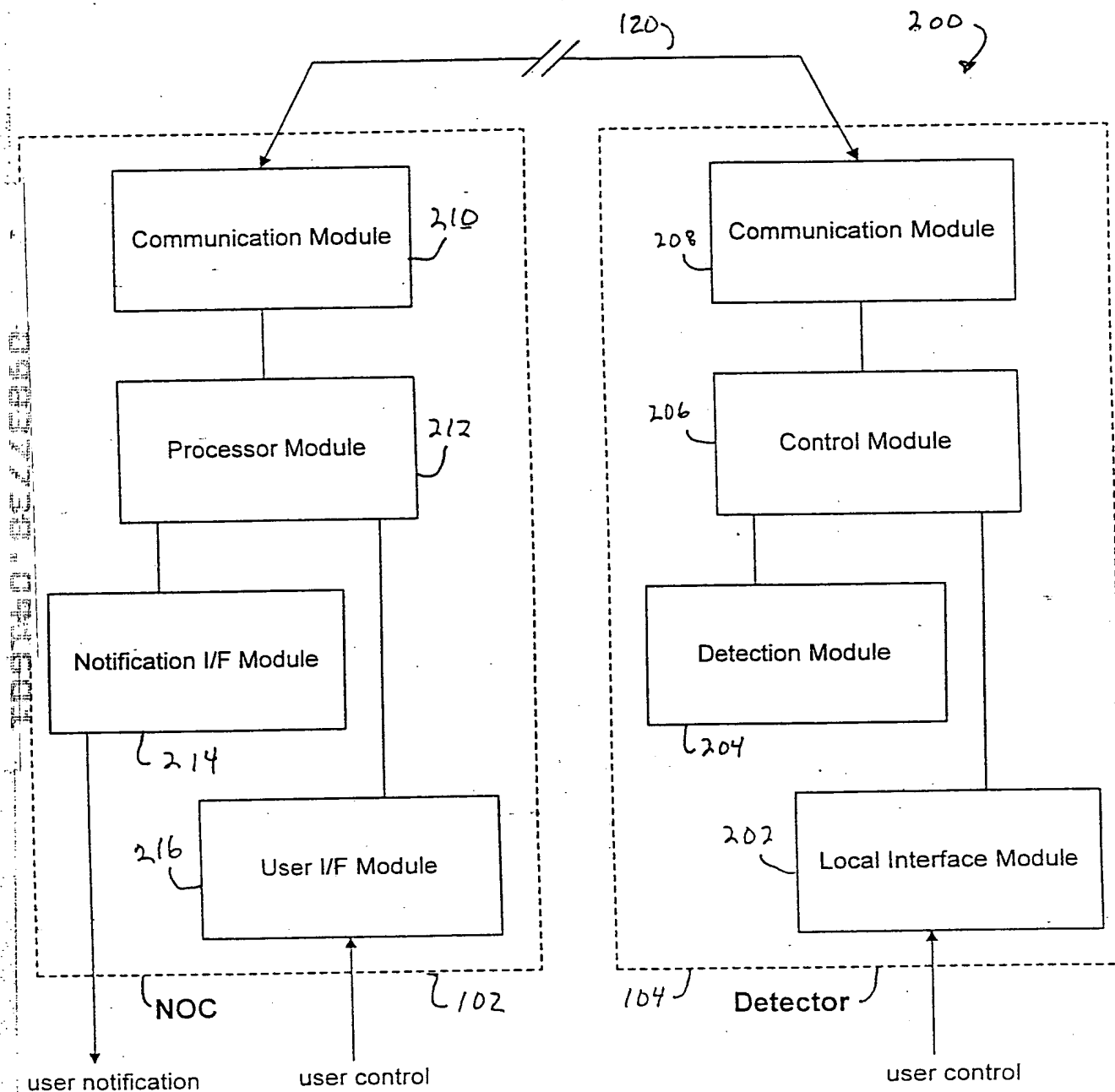
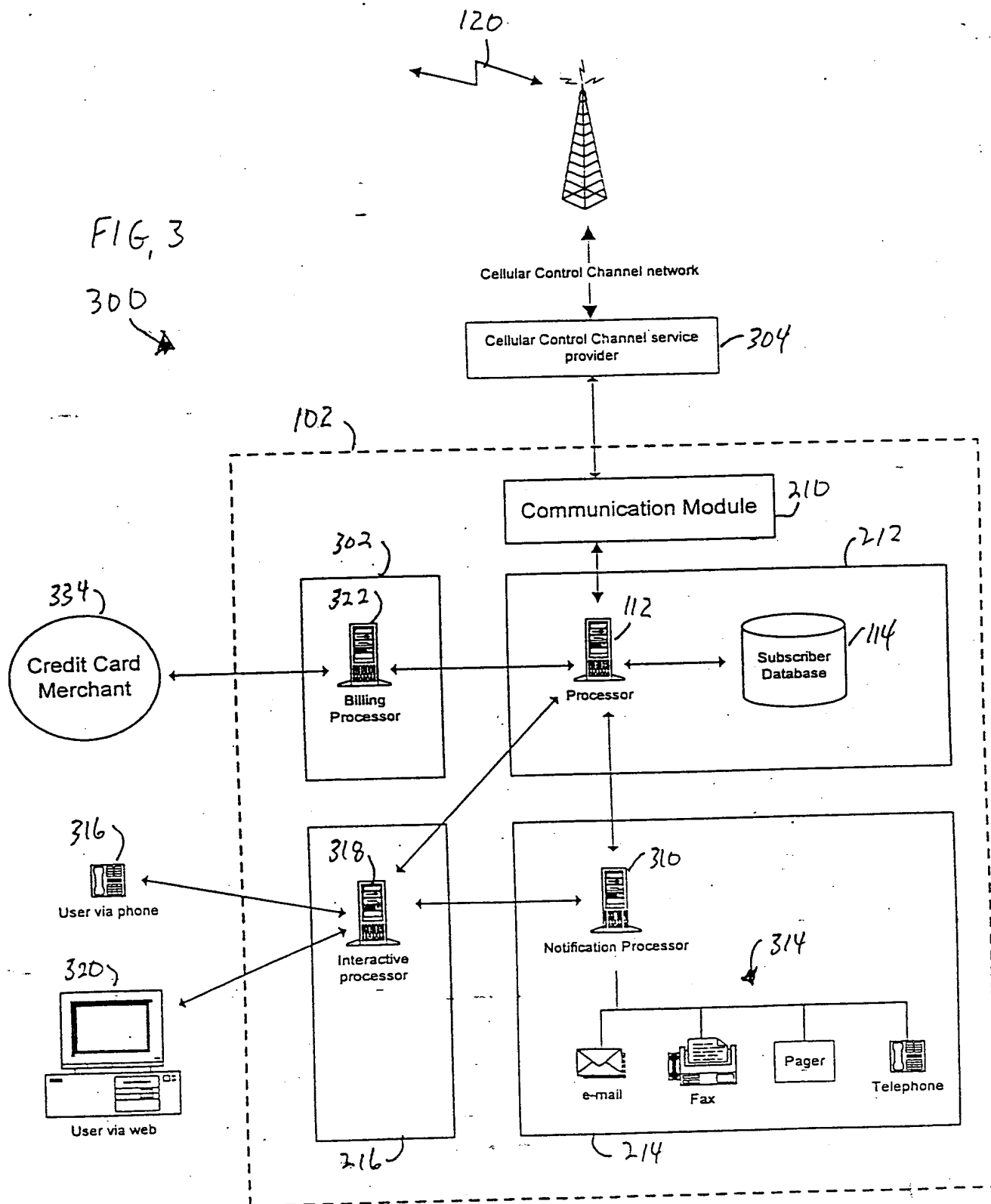


FIG. 2



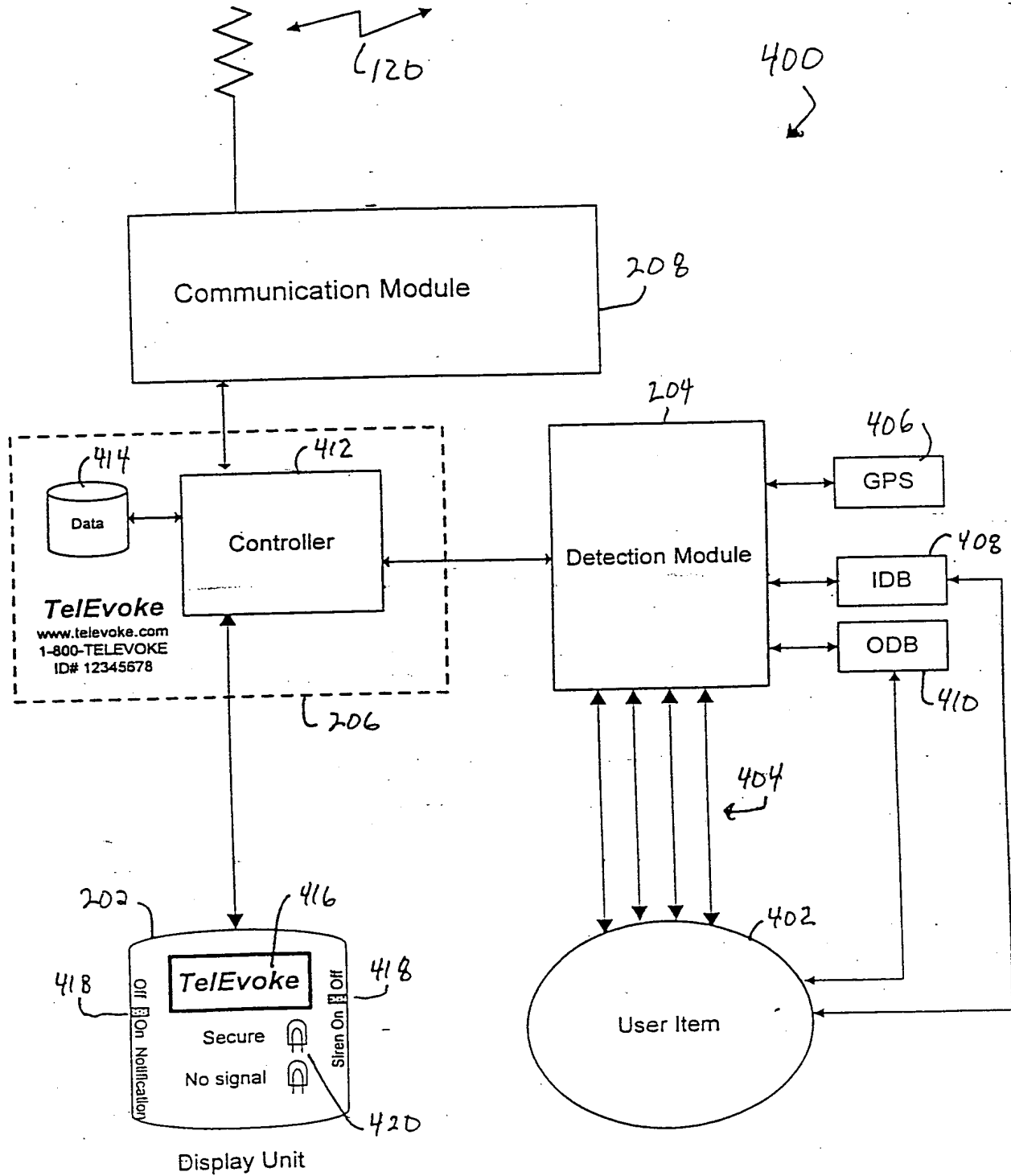


FIG. 4

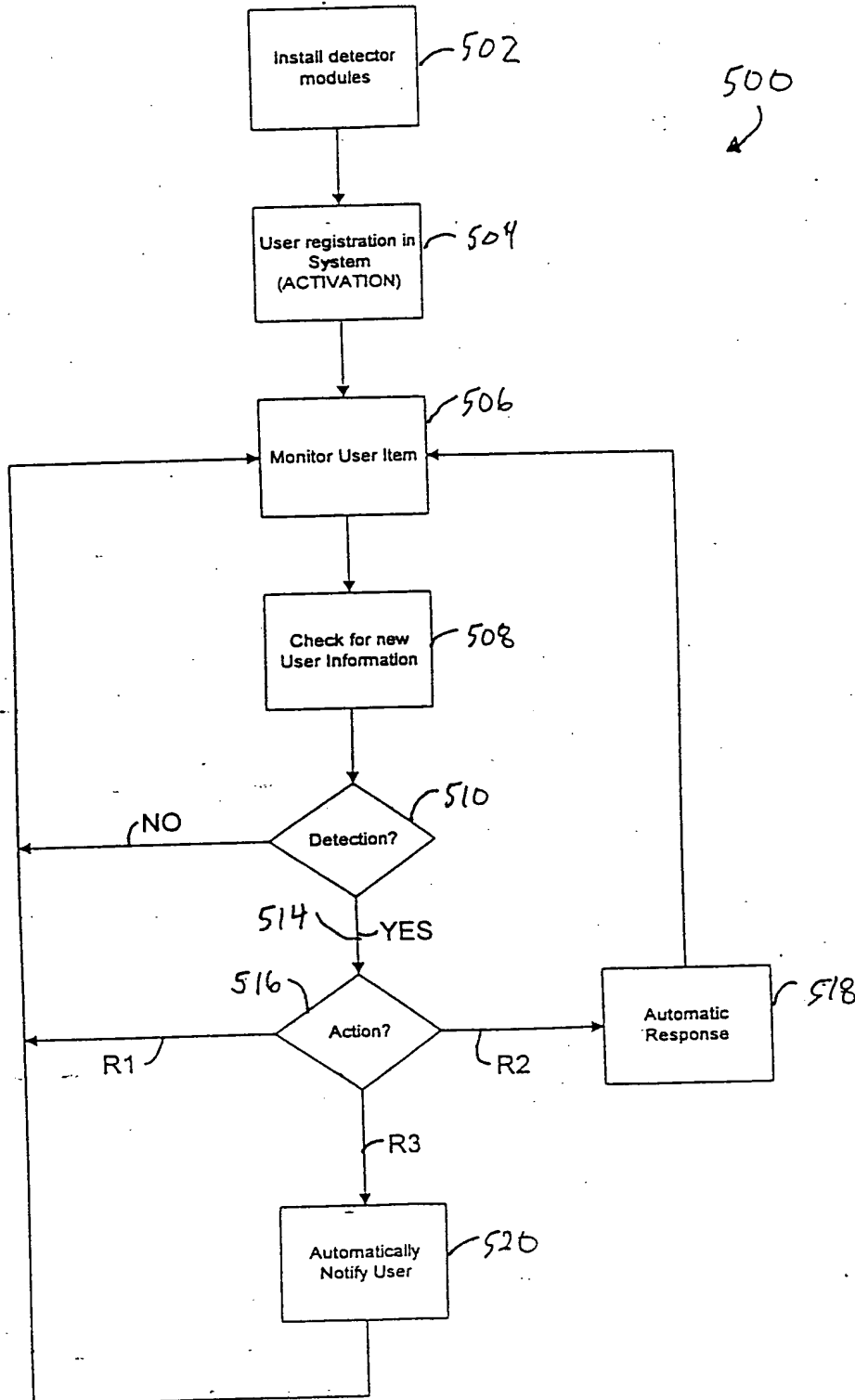
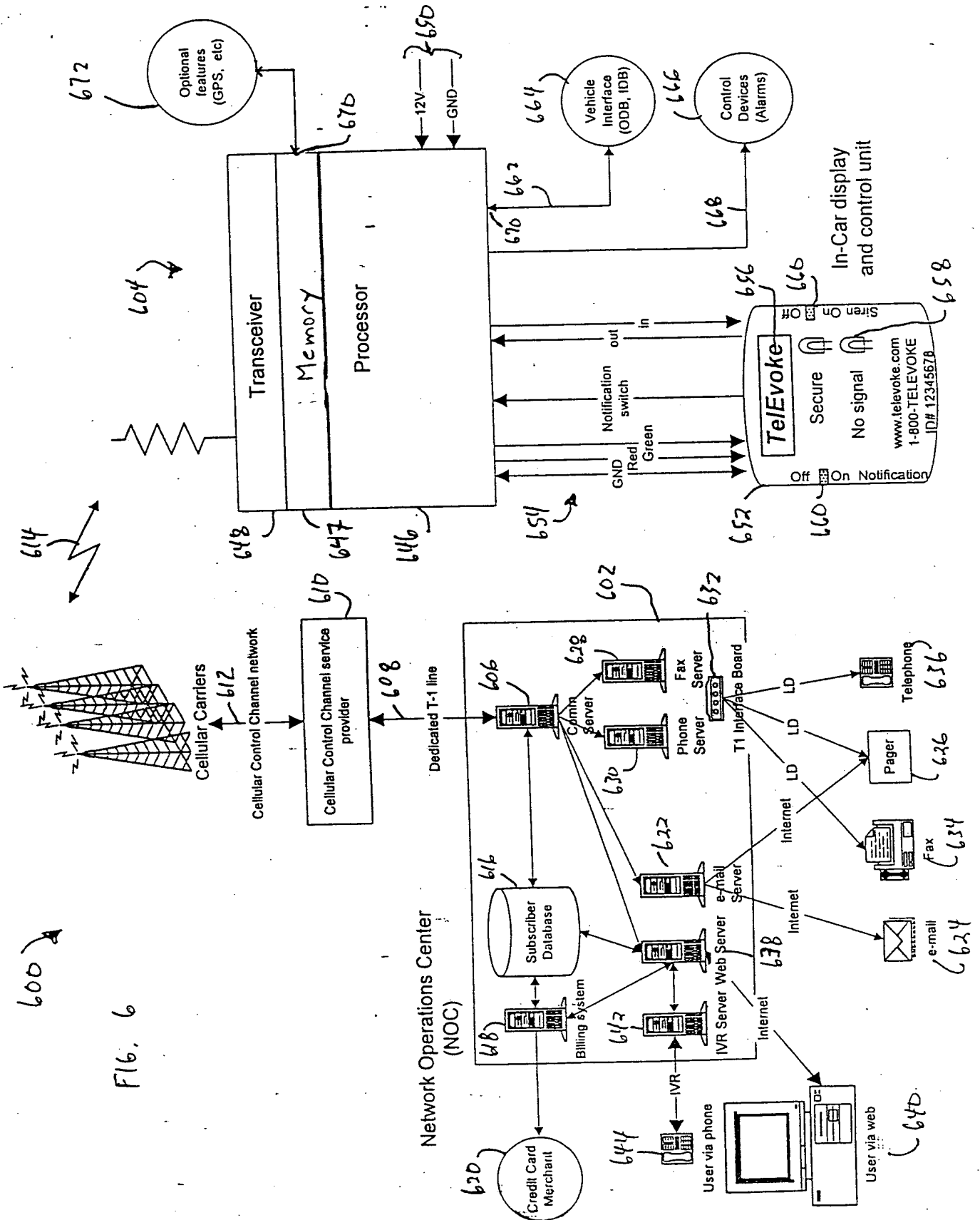


FIG. 5



700 ↘

ID NUMBER	CONDITION
0	Doors Lock/Unlocked
1	Windows Up/Down
2	Alarm Arm/Disarm
3	Sunroof Open/Close
4	Trunk Open/Close
5	Lights On/Off
6	Horn On/Off
7	Engine
8	Ignition
9	GPS Tracking

704 {

} 702

FIG. 7

FIG. 8

800

802 ) Interface type	804 Device
serial port	IDB (Doors Lock/Unlocked)
serial port	IDB (Windows Up/Down)
twist pair	Alarm Arm/Disarm
serial port	IDB (Sunroof Open/ Close)
serial port	IDB (Trunk Open/Close)
serial port	IDB (Lights On/Off)
twist pair	Horn On/Off
serial port	OBD (Engine)
serial port	OBD (Ignition)
806 parallel port	GPS Tracking 808
twist pair	Misc.

IDB = Intelligent Data Bus (devices available)

OBD = On Board Diagnostic (engine functions)



Butchen, Doyle, Brown & Enersen, LLP (415) 393-2000  
Embarcadero Center,  
San Francisco, California 94111  
Serial No.: Not Yet Assigned  
Filing Date: April 16, 2001  
Inventors: Bristow, et al.  
Titled: SOFTWARE AND PROTOCOL STRUCTURE  
FOR AN AUTOMATED USER NOTIFICATION SYSTEM  
Express Mailing Label No.: EL710236861US  
Figure 2 of 19 Attorney Docket No. 22962-7005

Televoke Login Page

# TELEVOKE

Welcome to televoke.net

Device ID#:  902  
Passcode:  904

ENTER

[How to get Televoke?](#)  
[Support](#)

Copyright © 1999 Televoke, Inc. All rights reserved.

Note: this is a non-public website and is protected by password security. All content at [www.televoke.net](http://www.televoke.net) and its sub directories is proprietary and confidential

900

FIG. 9A

atchen, Doyle, Brown & Enersen, LLP (415) 393-2000  
Embarcadero Center,  
San Francisco, California 94111  
Serial No.: Not Yet Assigned  
Filing Date: April 16, 2001  
Inventors: Bristow, et al.  
Titled: SOFTWARE AND PROTOCOL STRUCTURE  
FOR AN AUTOMATED USER NOTIFICATION SYSTEM  
Express Mailing Label No.: EL710236861US  
Figure 10 of 19 Attorney Docket No. 22962-7005

## Televoke - Notification


TELEVOKE		Device ID Number: 12345678 (BMW) [E]	Your device is currently: <input checked="" type="checkbox"/> In Range <input type="checkbox"/> Out of Range <a href="#">Logout</a>			
News	Notification	Control	Tracking	Billing	Upgrade	Support
		Zone: 1 (motion detector) [E]				
912	914	916				
<input checked="" type="checkbox"/> Device	Phone Number	Message				
<input checked="" type="checkbox"/> Phone... [E]	(415) 778-0138	Rick Bentley's BMW M3 reports doors		<input type="button" value="Test"/> <input type="button" value="Save"/>		
<input type="checkbox"/> Device	Pager Number	Numeric Message				
<input type="checkbox"/> Pager... [E]		(415) 555-1234		<input type="button" value="Test"/> <input type="button" value="Save"/>		
<input type="checkbox"/> Device	E-mail Address	Body				
<input type="checkbox"/> E-mail... [E]		The doors on Rick Bentley's M3 have		<input type="button" value="Test"/> <input type="button" value="Save"/>		
910						
FIG. 9B						
[News] [Notification] [Control] [Tracking] [Billing] [Upgrade] [Support]						
Copyright © 1999 Televoke, Inc. All rights reserved.						

McCutchen, Doyle, Brown & Enersen, LLP (415) 393-2000  
Three Embarcadero Center,  
San Francisco, California 94111  
Serial No.: Not Yet Assigned  
Filing Date: April 16, 2001  
Inventors: Bristow, et al.  
Titled: SOFTWARE AND PROTOCOL STRUCTURE  
FOR AN AUTOMATED USER NOTIFICATION SYSTEM  
Express Mailing Label No.: EL710236861US  
Figure 11 of 19 Attorney Docket No. 22962-7005

## Televoke Control Page

# TELEVOKE

News Notification **Control**  
control page

Device ID 12345678 (BMW) Your device is currently: ☒ In Range ☐ Out of Range 

Tracking Billing Upgrade Support

Your vehicle has the following control capabilities,  
to add more go to the [upgrade page](#).

1 Lock/Unlock Doors



922

2 Arm/Disarm Alarm



3 Windows Up/Down



924

4 Lights & Horn



5 Start Motor



[[News](#)] [[Notification](#)] [[Control](#)] [[Tracking](#)] [[Billing](#)] [[Upgrade](#)] [[Support](#)]

Copyright © 1999 Televoke, Inc. All rights reserved.

FIG. 9C

## Televoke News and Events Page

# TELEVOKE

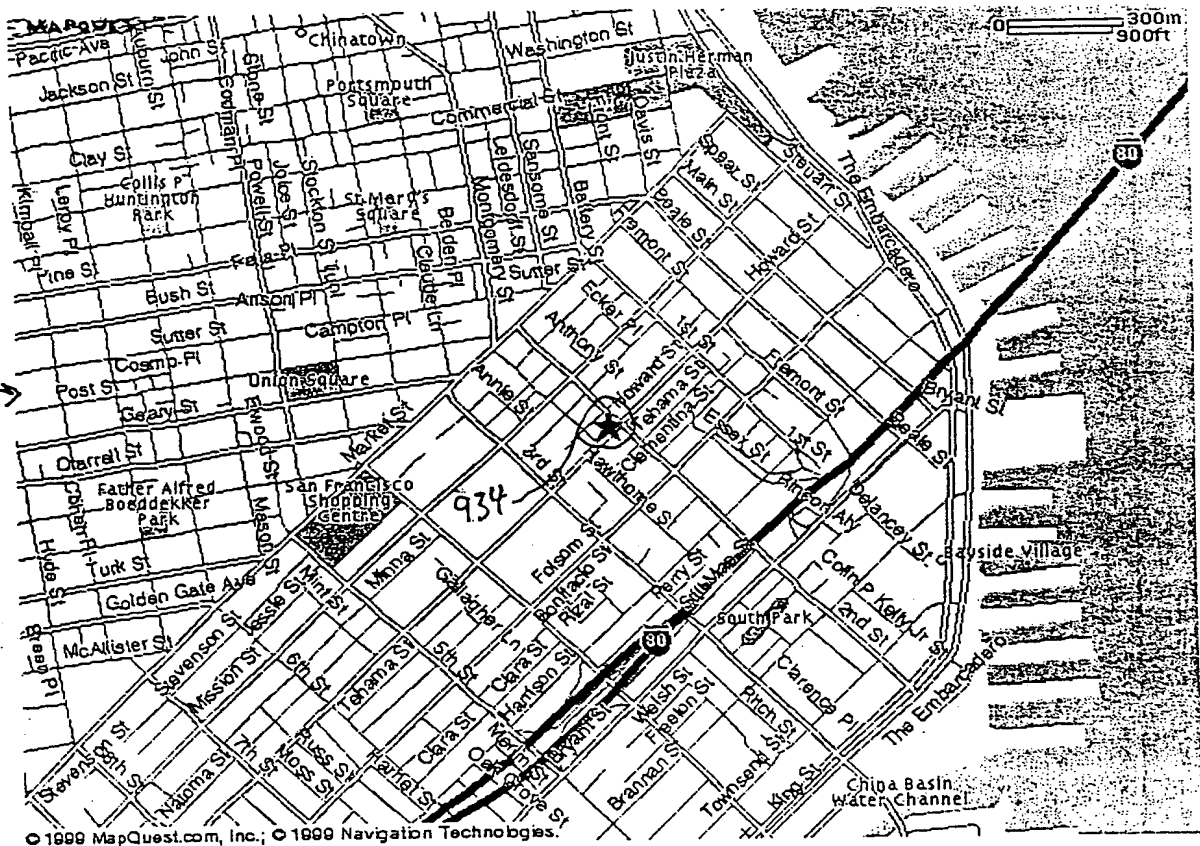
Device ID 12345678 (BMW)  
Number:

Your device is currently: ☒ In Range ☐ Out of Range [Logo](#)

[News](#) [Notification](#) [Control](#) [Tracking](#) [Billing](#) [Upgrade](#) [Support](#)  
**tracking page**

930

Your automobile is currently nearest:  
Howard and New Montgomery in San Francisco, California.  
It is currently stationary and hasn't moved for the last 3 hours.



Show vehicle position for the last

[\[News\]](#) [\[Notification\]](#) [\[Control\]](#) [\[Tracking\]](#) [\[Billing\]](#) [\[Upgrade\]](#) [\[Support\]](#)

Copyright © 1999 Televoke, Inc. All rights reserved.

FIG. 9D

hen, Doyle, Brown & Enersen, LLP (415) 393-2000  
Embarcadero Center,  
San Francisco, California 94111  
Serial No.: Not Yet Assigned  
Filing Date: April 16, 2001  
Inventors: Bristow, et al.  
Titled: SOFTWARE AND PROTOCOL STRUCTURE  
FOR AN AUTOMATED USER NOTIFICATION SYSTEM  
Express Mailing Label No.: EL710236861US  
Figure 13 of 19 Attorney Docket No. 22962-7005

## Televoke News and Events Page

# TELEVOKE

Device ID 12345678 (BMW) Your device is currently: ☒ In Range ☐ Out of Range [Logo](#)

[News](#) [Notification](#) [Control](#) [Tracking](#) [Billing](#) [Upgrade](#) [Support](#)

## billing page

Activity for the current billing period starting on 4/1/99. [Click here](#) for previous billing periods.

Event #	Type	Date	Time	Action	Charges
162	Notification	4/01/99	11:42pm	called: (415) 555-1234	N/A
163	Notification	4/01/99	11:42pm	paged: (415) 555-4321	N/A
164	Notification	4/01/99	11:42pm	e-mail: rick@televoke.com	N/A
166	Control	4/05/99	2:30pm	unlock doors	N/A
167	Tracking	4/12/99	6:45pm	web location	N/A
168	Control	4/17/99	6:13pm	unlock doors	\$0.50
168	Notification	4/20/99	10:49pm	called: (415) 555-1234	\$0.50
169	Notification	4/20/99	10:49pm	paged: (415) 555-4321	\$0.50
170	Notification	4/20/99	10:49pm	e-mail: rick@televoke.com	\$0.50

Your current plan includes 5 free events per month. To upgrade your plan for more included events, or more features click on [UPGRADE](#).

[\[News\]](#) [\[Notification\]](#) [\[Control\]](#) [\[Tracking\]](#) [\[Billing\]](#) [\[Upgrade\]](#) [\[Support\]](#)

Copyright © 1999 Televoke, Inc. All rights reserved.

FIG. 9E

Table 1 Downstream Message Codes

Function	Message Name	Code
Account Maintenance	D_Activate_Account	WC1
Account Maintenance	D_Deactivate_Account	WC2
Remote Vehicle Tracking	D_Get_Last_Known_Position	1
Remote Vehicle Tracking	D_Get_Last_8_Pos_5_min	WC3
Remote Vehicle Tracking	D_Get_Last_8_Pos_1_hour	WC4
Remote Vehicle Tracking	D_Get_Last_8_Stops	WC5
Remote Vehicle Control (G4 Systems Only)	D_Arm_and_Lock	2
Remote Vehicle Control (G4 Systems Only)	D_Disarm_and_Unlock	3
Remote Vehicle Control (G4 Systems Only)	D_Activate_Output_A	4
Remote Vehicle Control (G4 Systems Only)	D_Activate_Output_B	5
Remote Vehicle Control (G4 Systems Only)	D_Activate_Output_C	6
Remote Vehicle Control (G4 Systems Only)	D_Disable_Sensor_A	WC6
Remote Vehicle Control (G4 Systems Only)	D_Enable_Sensor_A	WC7
Remote Vehicle Control (G4 Systems Only)	D_Disable_Sensor_B	WC8
Remote Vehicle Control (G4 Systems Only)	D_Enable_Sensor_B	WC9
Remote Vehicle Control (G4 Systems Only)	D_Disable_Sensor_C	WC10
Remote Vehicle Control (G4 Systems Only)	D_Enable_Sensor_C	WC11
Emergency Button and Impact Sensor Response	D_Received_and_Dispatched	7

FIG. 10

FIG. 11

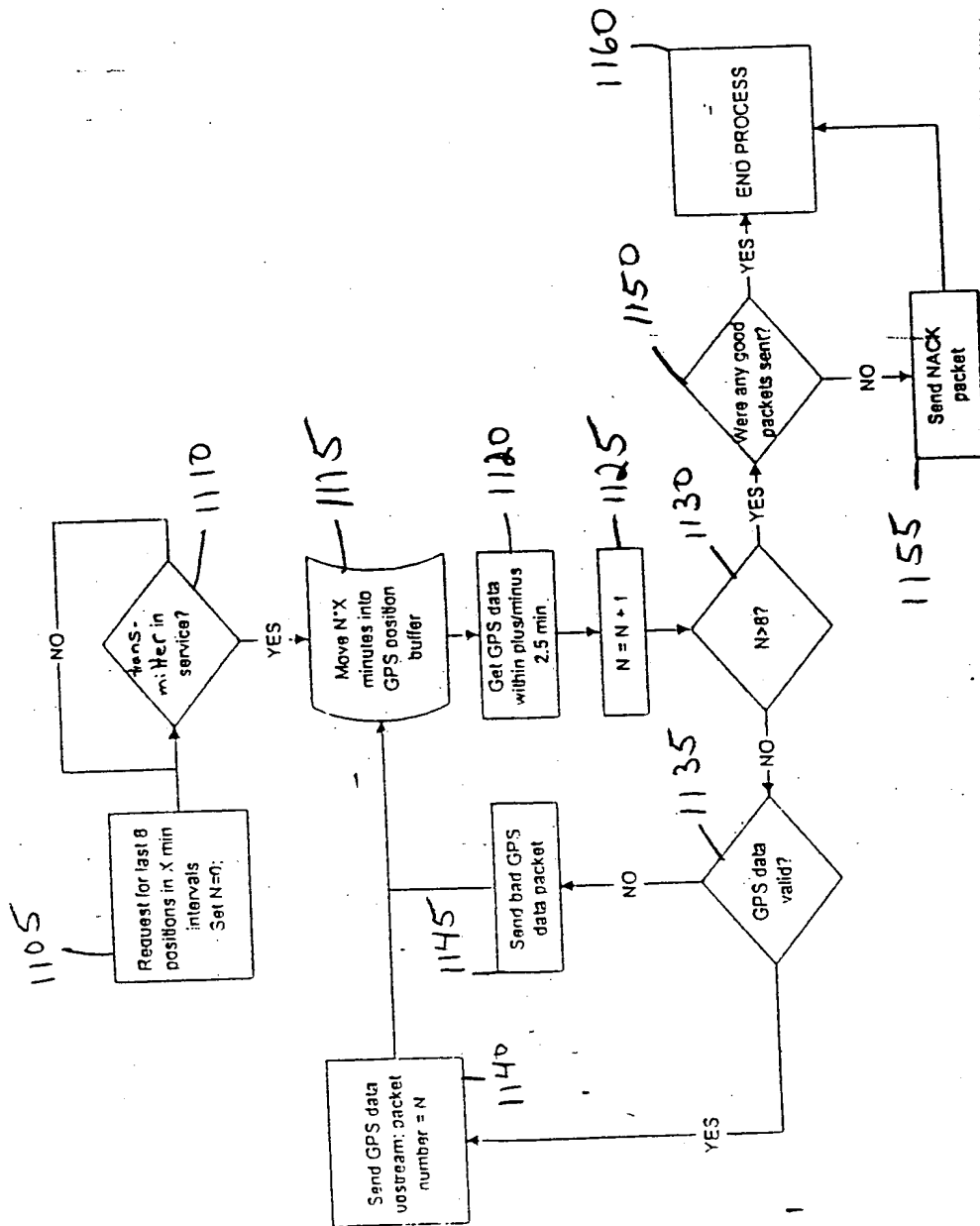


Table 2 Upstream Microburst Data Format

Digit	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	MSD	LSD	Dir	D <sub>1</sub>	D <sub>2</sub>	M <sub>1</sub>	M <sub>2</sub>	M <sub>3</sub>	M <sub>4</sub>	D <sub>1</sub>	D <sub>2</sub>	M <sub>1</sub>	M <sub>2</sub>	M <sub>3</sub>	M <sub>4</sub>
Content	Alarm Event and Speed		Di-rection	Longitude position offset data. Format: D <sub>1</sub> D <sub>2</sub> M <sub>1</sub> M <sub>2</sub> M <sub>3</sub> M <sub>4</sub>				Latitude position data. Format: D <sub>1</sub> D <sub>2</sub> M <sub>1</sub> M <sub>2</sub> M <sub>3</sub> M <sub>4</sub>							

FIG. 12



1305 Table 3 Direction Code Map

Code	A	1	2	3	4	5	6	7	8
Meaning	N	NE	E	SE	S	SW	W	NW	Stopped

When vehicle is stopped, direction is not defined.

1310

FIG. 13

Table 4 Upstream Message Codes

Reference Section(s)	Message Name	Alarm Event and Speed Code			
		SP1	SP2	SP3	SP4
Remote Vehicle Tracking Alarm Event Notification Configuration (G4 Systems Only)	U_Sensor_A	00	25	50	75
Remote Vehicle Tracking Alarm Event Notification Configuration (G4 Systems Only)	U_Sensor_B	01	26	51	76
Remote Vehicle Tracking Alarm Event Notification Configuration (G4 Systems Only)	U_Sensor_C	02	27	52	77
Remote Vehicle Tracking Alarm Event Notification Configuration (G4 Systems Only)	U_Door_Trigger	03	28	53	78
Remote Vehicle Tracking Alarm Event Notification Configuration (G4 Systems Only)	U_Trunk_Trigger	04	29	54	79
Remote Vehicle Tracking Alarm Event Notification Configuration (G4 Systems Only)	U_Hood_Trigger	05	30	55	80
Remote Vehicle Tracking Alarm Event Notification Configuration (G4 Systems Only)	U_Ignition_Sensor	06	31	56	81
Remote Vehicle Tracking Alarm Event Notification Configuration (G4 Systems Only)	U_3_Invalid_Valer_Codes	07	32	57	82
Remote Vehicle Tracking Alarm Event Notification Configuration (G4 Systems Only)	U_BlackJax_Activation	08	33	58	83
Remote Vehicle Tracking Alarm Event Notification Configuration (G4 Systems Only)	U_System_OK	09	34	59	84
Remote Vehicle Tracking Alarm Event Notification Configuration (G4 Systems Only)	U_Alarm_Reset	10	35	60	85
Remote Vehicle Tracking	U 5 Min Pos	11	36	61	86
Remote Vehicle Tracking	U 1 Hour Pos	12	37	62	87
Remote Vehicle Tracking	U Last 8 Stops Pos	13	38	63	88
Remote Vehicle Tracking	U Stops 1 6 Time	14	39	64	89
Remote Vehicle Tracking	U Stops 7 8 Time	15	40	65	90
Emergency Button and Impact Sensor Response	U_Button_911	16	41	66	91
Emergency Button and Impact Sensor Response	U_Button_Roadside	17	42	67	92
Emergency Button and Impact Sensor Response	U_Button_Medical	18	43	68	93
Remote Vehicle Control (G4 Systems Only)	U Command ACK	19	44	69	94

\*SP1 = 6-25 MPH; SP2 = 26-50 MPH; SP3 = 51-75 MPH; SP4 = >76 MPH

\*\*Detail of these messages is defined in referenced document Clifford Vehicle Tracking Payload Protocol and Format

\*\*\*Substitute ACK code (1 = received and handled, 2 = received and could not execute) for digit 3, digit 4 & 5 command code received per Table 1

FIG. 14

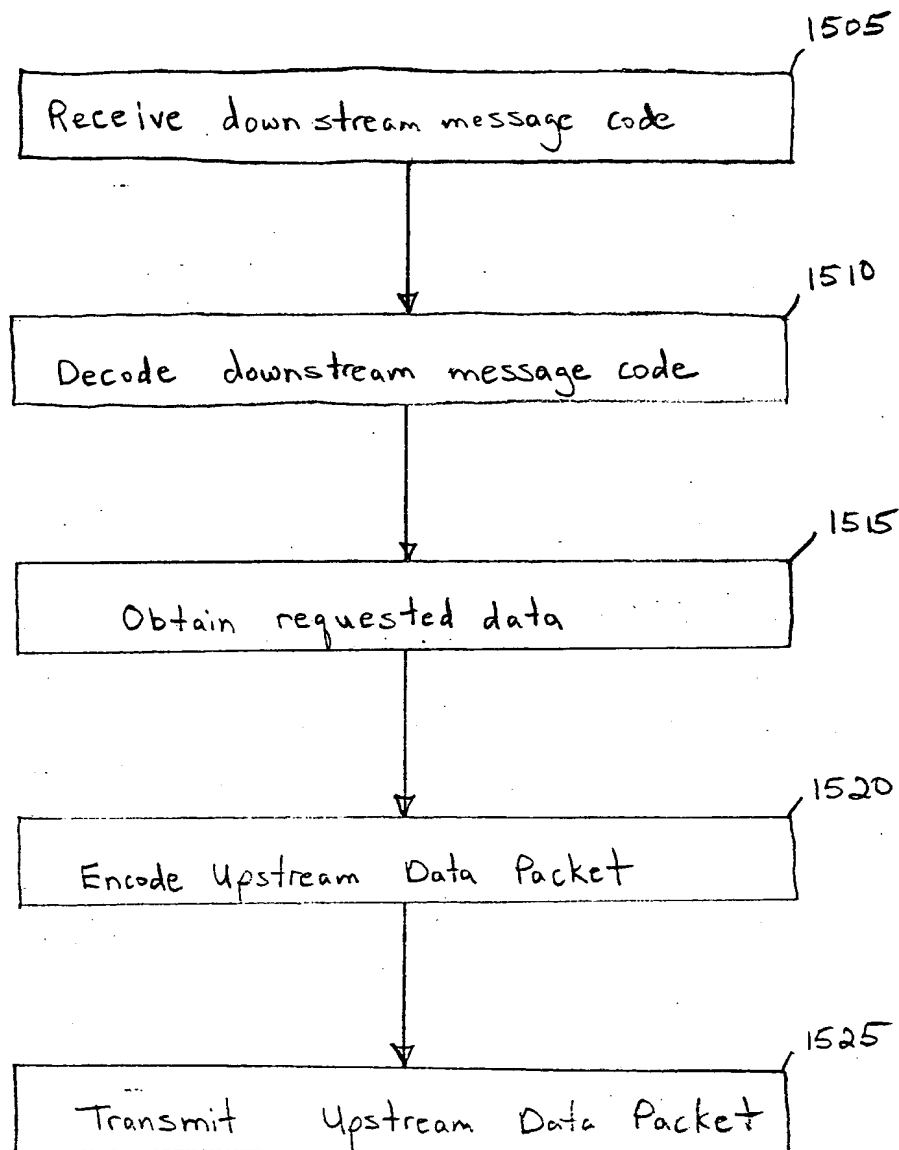


FIG. 15